



BILL OF MATERIALS		
MK.	QTY.	DESCRIPTION
1	1	DODECAGONAL SHAFT 350 A/F x 6.4 THICK PLATE
2	1	BACK-UP STRIP 50 x 4.763 (FOR SHAFT)
3	1	BASE PLATE 600 DIA. x 51 THICK
4	1	SHAFT END PLATE 400 DIA. x 12 THICK
5	2	DODECAGONAL GUSSET PLATE 12 THICK
6	1	DODECAGONAL ARM 350 A/F TO 125 A/F x 6.4 THICK PLATE
7	1	DODECAGONAL END PLATE 125 A/F x 4.763 THICK
8	1	BACK-UP STRIP 50 x 4.763 (FOR ARM)
9	2	FLANGE PLATE 51 THICK
10	12	25 DIA. BOLTS C/W NUT & 2 WASHERS (ASTM A325, TYPE 1, GALV.)
11	2	SIDE GUSSET PLATE 19 THICK
12	1	GUSSET PLATE 19 THICK
13	1	GUSSET PLATE 19 THICK
14	16	PLATE WASHER 13 THICK
		HANDHOLE MARK H1
15	1	COVER PLATE 11 GA. x 160x 340 (ASTM A569)
16	1	REINFORCING RING 8 x 65 x 830
* 17	2	CLAMP BAR 6 x 40 x 180
* 18	2	10 DIA. x 140 BOLT S/S (TYPE 316)
* 19	1	GROUND STUD ASSEMBLY 10 DIA. x 40
		HANDHOLE MARK H2
* 18	1	10 DIA. x 140 BOLT S/S (TYPE 316)
* 19	1	GROUND STUD ASSEMBLY 10 DIA. x 40
20	1	COVER PLATE 11 GA. x 130 x 220 (ASTM A569)
21	1	REINFORCING RING 8 x 65 x 555
* 22	1	CLAMP BAR 6 x 40 x 150
23	1	CAP PLATE, 120 DIA. x 3 THICK
24	1	CAP RETAINER BACKING BAR 140 x 38 x 6, C/W THREADED HOLE AT CENTER FOR MK. 31
25	1	10 DIA S/S BOLT C/W FLAT S/S WASHER

- \* NOTES:**
- MARK NO. 17 & 22 C/W 8-DIA. PUNCHED 10 N.C. TAPPED AT THE CENTER OF PLATE.
  - MARK NO. 18 C/W CUP WASHER.
  - MARK NO. 19 C/W 2-10 DIA. HEX NUT, 2-TERMINAL WASHER & 1-LOCKWASHER.

**GENERAL NOTES**

- DESIGN DATA**
  - AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 6TH EDITION, 2013, PLUS INTERIMS.
  - DESIGN WIND LOAD = 1.5 kPa
  - DESIGN ICE LOAD = 0.15 kPa
  - FATIGUE CATEGORY I CONSIDERING NATURAL WIND GUSTS, TRUCK INDUCED GUSTS, AND GALLOPING.
- ALL PLATE MATERIALS SHALL BE CSA G40.21 - 300W STRUCTURAL STEEL.
- ALL MATERIALS EXCEPT STAINLESS STEEL AND ALUMINUM SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 TO A MIN. NET RETENTION OF 610 g/m<sup>2</sup> UNLESS INDICATED OTHERWISE.
- ALL AREAS OF DAMAGED GALVANIZING SHALL BE REPAIRED WITH GALVALLOY OR APPROVED EQUIVALENT, HAVING A MINIMUM 96% ZINC CONTENT IN THE DRY FILM.
- SIGNS**
  - 3 SIGN PANELS, MAXIMUM SIZE 914 x 914 mm AS SHOWN ON SHEET 56. SUPPLIED AND INSTALLED BY THE CITY OF WINNIPEG TRAFFIC SERVICES BRANCH.
  - SIGN PANELS SHALL BE INSTALLED ON THE SIGN SUPPORT STRUCTURE IMMEDIATELY FOLLOWING ERECTION OF THE SUPPORT STRUCTURE (SAME DAY).
- INSTALL HOLES IN THE GUSSET PLATES FOR DRAINAGE DURING GALVANIZING AS DETAILED.
- PROVIDE "RAISED" IDENTIFICATION NO. WITH WELDING ELECTRODE FOR THE SIGN STRUCTURE.
- GRIND ALL SHARP POINTS AND EDGES.
- EXTERIOR WELD JOINING SHAFT TO TRANSVERSE PLATE SHALL BE AN UNEQUAL LEG COMPLETE PENETRATION WELD WITH THE LONG LEG OF THE WELD ALONG THE SHAFT TERMINATING AT 30° FROM THE SHAFT SURFACE.
- SEAM WELDS SHALL BE 100% PENETRATION WITHIN 200mm OF BOTH ENDS OF THE VERTICAL AND ARM SHAFTS.
- STRUCTURAL BOLTS FOR FLANGE AND SPLICE CONNECTIONS SHALL BE TIGHTENED IN ACCORDANCE WITH THE TURN-OF-NUT METHOD.



TENDER No.8-2019

LOCATION APPROVED UNDERGROUND STRUCTURES	
SUPR. U/G STRUCTURES COMMITTEE	DATE
<b>NOTE:</b> LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.	

NO.	REVISIONS	DATE	BY
C	ISSUED FOR TENDER	19/03/22	BAP
B	ISSUED FOR CLIENT REVIEW	19/02/15	BAP
A	N/A	-	-

DESIGNED BY		CHECKED BY	
TN	GQW		
DRAWN BY		APPROVED BY	
AH	BAP		
DATE		DATE	
19/02/15	19/02/15		

PROFESSIONAL'S SEAL	
PROVINCE OF MANITOBA	REGISTERED PROFESSIONAL ENGINEER
G.Q. WEI	Member 38723
CONSULTANT FILE NAME	
1804191-57-Fermor-04-08.dwg	

**THE CITY OF WINNIPEG**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION

2019/2020 REGIONAL STREET RENEWAL PROGRAM  
**FERMOR AVENUE**  
FROM LAGIMODIERE BOULEVARD  
TO PLESSIS ROAD (CITY BOUNDARY)  
OVERHEAD SIGN STRUCTURE  
S794 DAWSON ROAD NB, SOUTH OF FERMOR  
FABRICATION DETAILS

CITY DRAWING NUMBER: P-3501-57  
SHEET 57 OF 63  
DRAWING No. 57

**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES